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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,353	05/31/2006	Uwe Hauf	2006-084	3626
27569	7590	01/22/2010	EXAMINER	
PAUL AND PAUL 2000 MARKET STREET SUITE 2900 PHILADELPHIA, PA 19103			MACARTHUR, SYLVIA	
			ART UNIT	PAPER NUMBER
			1792	
			NOTIFICATION DATE	DELIVERY MODE
			01/22/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

**Application No.**

10/581,353

**Applicant(s)**

HAUF ET AL.

**Examiner**

Sylvia R. MacArthur

**Art Unit**

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 May 2006.  
2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-24 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 31 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-8508)  
4) ☐ Interview Summary (PTO-413)  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_  
Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/6/2009 has been entered.

***Response to Arguments***

1. Applicant's arguments filed 11/6/2009 have been fully considered but they are not persuasive. Despite applicant's amendments, the examiner will maintain rejections that have been recited previously. It is noted that the independent claims feature Markush claims wherein the prior art need only anticipate or fairly suggest as least one of the preferred embodiments claimed. Applicant argues in the Remarks that the prior art fails to teach insertion elements configured such that they are fitted in the recesses of the carrier elements. Applicant further argues that insertion elements are different from conveying members and treatment devices. The examiner notes that Henington teaches electrolytic treatment of flat workpieces (PCBs) therein Henington provides conveying members 20a,b and treatment devices fluid delivery apparatus (nozzles 16,18). In this, the insertion elements carry or secure conveying members and at least one treatment device.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henington et al (EP 0959153).

4. Regarding claims 1,4, 7, 23-27: Henington et al teaches an electroplating machine (electrolytic treatment) of lat workpieces (PCBs), comprising conveying members (rollers 20A, B) on conveying path, see Fig. 1. Carrier elements are illustrated in Fig. 7C comprise recess 116, insertion elements 24 are illustrated in Figs. 7A,B. Fig. 7c illustrates how the recess and carrier elements fit. Note that the intended use of the apparatus is not given structural patentable weight as an apparatus is what it is and not what it does. It is noted that Henington does not provide more than one conveying member or at least two conveying members located as newly recited. However, applicant has not established the criticality of the need for a plurality of conveying members. The examiner interprets this is a matter of duplication of parts. According to *In re Japikse*, 181 F. 2d 1019, 86 USPQ 70 (CCPA 1950) *In re Kuhle*, 526 F. 2d 553, 188 USPQ 7 (CCPA 1975), the mere duplication of parts has no patentable significance unless a new and unexpected result is produced. The motivation to provide a plurality of conveying members is to increase the throughput. Thus, it would have been obvious for one of ordinary skill in the art to duplicate the conveying members of Henington et al in order to increase the throughput.

Regarding claim 2: See Fig. 7C

Regarding claims 3 and 6: See Fig. 1.

Regarding claim 5: The teachings of Henington et al were discussed above.

Henington et al fails to teach the axles of the conveying rollers are offset. This arrangement is an alternative to the claimed arrangement of [0039] and [0040]. The motivation to offset the axles is to extend the range of motion of the conveying rollers. Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to offset the axles of the conveying rollers.

Regarding claim 8: See [022], the fluid delivery device includes nozzle 52 known as flow, jet and/or fan nozzles.

Regarding claim 9: See [022].

Regarding claim 10: [0029].

Regarding claims 11-19: Henington et al fails to teach the particular arrangements of the components as recited. Note that the arrangements are well within the parameters of design of one of ordinary skill in the art and barring a showing of criticality by applicant are deemed obvious and are alternative arrangements of the apparatus of Henington et al.

Regarding claims 20-22: See Figures.

4. Alternatively, claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henington et al (EP 0959153) in view of Pender (US 4,607,590).

The teachings of Henington et al were discussed above. Pender fails to teach the axles of the conveying rollers are offset. See Figure 1 of Pender. The motivation to modify the apparatus of Henington et al is that the offset axles so that no substrate will be damaged by other substrates or their peripheral edges do not touch, see col. 4 lines 24-65. Thus, it would have been obvious for

one of ordinary skill in the art at the time of the claimed invention to modify the apparatus of Henington et al to offset the axles of the rollers.

5. Alternatively, claims 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henington et al (EP 0959153) in view of Haas et al (DE 4035932).

Henington et al fails to teach the particular arrangements of the components as recited. See the Figures of Haas et al that teach or suggest the claimed arrangements. Note that the arrangements are well within the parameters of design of one of ordinary skill in the art and barring a showing of criticality by applicant are deemed obvious and are alternative arrangements of the apparatus of Henington et al .The motivation to arrange the components of the apparatus as claimed is that it a mere matter of optimization and design choice, applicant has failed to provide a showing of criticality of the arrangements. Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to modify the apparatus of Henington et al with the apparatus of Haas et al to arrange the apparatus as recited in the claims in order to optimize the treatment of the substrates.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sylvia R. MacArthur whose telephone number is 571-272-1438. The examiner can normally be reached on M-Th during the hours of 8 a.m. and 4:30 p.m.. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 18, 2010

/Sylvia R MacArthur/  
Primary Examiner, Art Unit 1792